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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/011,029	11/13/2001	Chandrashekar R. Padala	42390P13128	7523

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER

SWERINGEN, JEFFREY R

ART UNIT	PAPER NUMBER
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2145

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/011,029

Applicant(s)

PADALA, CHANDRASHEKAR R.

Examiner

Jeffrey R. Swearingen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2005 and 09 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. The Examiner thanks Applicant for the resubmission of the Appendix to the 2/25/05 response by Applicant.

Drawings

2. The amended drawings are objected to because they are still confusing to one of ordinary skill in the art. Applicant's amendment to the drawings did help in clarifying problems with the original set of drawings. However, the overabundance of multiple connecting lines in addition to the plethora of confusing textual labels within boxes (often 4-6 unrelated textual labels within one box) has confused the Examiner as to what the drawings are attempting to accomplish. The Examiner suggests that Applicant attempt to greatly simplify the presentation of these drawings, as it is believed by the Examiner that a larger number of less complicated drawings would more adequately describe the invention than a small number of overcrowded, complicated and confusing drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Arguments

3. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-9, 11-14, 16, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Mockapetris (RFC 1035, Domain Names – Implementation and Specification, November 1987).

6. In regard to claim 1, Mockapetris discloses *a first plurality of peer devices; a first network server coupled to the first plurality of peer devices, the first network server to manage and maintain a first name-to-address resolution index that includes a list of addresses for the first plurality of peer devices; a second plurality of peer devices; a second network server coupled to the second plurality of peer devices and to the first network server, the second network server to manage and maintain a second name-to-address resolution index that includes a list of addresses for the second plurality of peer devices, the second network server configured to query the first name-to-address index such that the second network server responds to a request for a peer device address of one of the first plurality of peer devices as though the request was for a peer device address of one of the second plurality of peer devices.* Applicant has claimed a distributed DNS system. RFC 1035 clearly teaches a distributed DNS system. See Mockapetris, section 2.1, Overview, where “the database that makes up the domain space is distributed among various name servers. Different parts of the domain space are stored in different name server...The resolver starts knowledge of at least one name server. When the resolver processes a user query it asks a known name server for the information; in return, the resolver either receives the desired information or a referral to another name server.” Diagrams of this showing the structure claimed are

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available in section 2.2, Common configurations. The diagram only explicitly shows one host connected to a server, but it is inherent to a DNS system that multiple peer hosts can be connected to the DNS name server.

7. In regard to claim 2, Mockapetris is applied as in claim 1. Mockapetris further discloses *the first and second network servers are at equivalent hierarchical levels*. Mockapetris discloses that if a name server does not know the information, it will contact another name server. The servers in a distributed system of DNS servers are inherently on the same hierarchical level since they cover the same type of function and the second servers contacted in Mockapetris do not have any sort of control over the first name server. See section 2.1.

8. In regard to claim 3, Mockapetris is applied as in claim 1. Mockapetris further discloses *the first and second network servers have a common zone relationship*. Mockapetris discloses that a server can either know the information or contact another name server for the missing name information.

Mockapetris further discloses that if the information is missing from the name server, it will be able to learn the missing information or access a redundant database. Since redundant databases are present between the servers, the servers have a *common zone relationship*. See section 2.1.

9. In regard to claim 4, Mockapetris is applied as in claim 3. Access authorization is required inherently to access any server.

10. In regard to claim 5, Mockapetris is applied as in claim 4. Mockapetris further discloses *a third plurality of peer devices; and a third network server coupled to the third plurality of peer devices and to the second network server, the third network server to manage and maintain a third name-to-address resolution index that includes a list of addresses for the third plurality of peer devices, wherein the second and third network servers have a common zone relationship*. On page 5 of the Mockapetris RFC, a diagram is given which shows a name server that is communicatively coupled to two foreign name servers. The common zone relationship has already been explained in the rejection of claim 3, and the presence of peer devices and name to address resolution indices (DNS lookups) has been presented in the rejection of claim 1.

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11. In regard to claim 6, Mockapetris is applied as in claim 5. Mockapetris further discloses *the second network server is also configured to query the third name-to-address index such that the second network server responds to a request for a peer device address of one of the third plurality of peer devices as though the request was for a peer device address of one of the second plurality of peer devices*. Mockapetris teaches in 2.1 that if the information is not present on a name server, other name servers can be contacted for the information.

12. In regard to claim 7, Mockapetris is applied as in claim 1. Mockapetris further discloses *the first network server is also configured to query the second name-to-address index such that the first network server responds to a request for a peer device address of one of the second plurality of peer devices as though the request was for a peer device address of one of the first plurality of peer devices*. Mockapetris teaches in 2.1 that if the information is not present on a name server, other name servers can be contacted for the information.

13. Claim 8 meets the substantive limitations of claim 1 and the rejection of claim 1 is duly applied toward claim 8.

14. Claim 9 deals with *an output interface to couple the processing unit to the at least one peer on the first network*. This is inherent in the description of claim 8.

15. Claim 11 meets the substantive limitations of claim 2 and the rejection of claim 2 is duly applied toward claim 11.

16. Claim 12 meets the substantive limitations of claim 3 and the rejection of claim 3 is duly applied toward claim 12.

17. Claim 13 meets the substantive limitations of claim 4 and the rejection of claim 4 is duly applied toward claim 13.

18. Claim 14 meets the substantive limitations of claims 1 and 3 and the rejections of claims 1 and 3 are duly applied toward claim 14.

19. Claim 16 meets the substantive limitations of claim 4 and the rejection of claim 4 is duly applied toward claim 16.

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20. In regard to claim 17, Mockapetris is applied as in claim 14. Mockapetris further discloses *wherein there is no common zone relationship between the first server and the second server, and derivative common zone name-to-address resolution is selectively permitted by a server having common zone relationships with the first server and the second server.* Referring to Mockapetris, 2.1, "When the resolver processes a user query it asks a known name server for the information; in return, the resolver either receives the desired information or a referral to another name server. Using these referrals, resolvers learn the identities and contents of other name servers." Mockapetris has allowed that a relationship can be established between servers by use of a third party server here. This clearly allows for redirection of requests through multiple servers, since Mockapetris' distributed DNS system would be applied to each server in turn. A first server having a common zone relationship with a third server would contact the third server, which would refer it to the second name server. The third server would have a common zone relationship with the second server, and thus would transmit the information in that manner to the first server. This is "referr[ing] to another name server". The claim language of claim 17 still fits the definition of distributed DNS as taught in Mockapetris by using name server referrals (*derivative common zone name-to-address resolution...by a server having common zone relationships with the first server and the second server*). *Selectively permitting* access is inherent to a server which has access rights established on it.

21. Claim 18 meets the substantive limitations of claim 1 and the rejection of claim 1 is duly applied toward claim 18.

22. Claim 20 meets the substantive limitations of claim 3 and the rejection of claim 3 is duly applied toward claim 20.

23. Claim 21 meets the substantive limitations of claim 17 and the rejection of claim 17 is duly applied toward claim 21.

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claims 10, 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mockapetris as applied to claims 8, 14 and 19 above, and further in view of Official Notice.

26. In regard to claims 10, 15 and 19, Mockapetris fails to disclose returning an error message if the requested address is not found. However, Official Notice is taken that error messages are commonly returned when an address is not found in many scenarios involving a network, such as in use of the PING and TRACEROUTE network management commands and in the use of a web browser with messages such as 404 errors. DNS is another well known networking system which involves communication between addresses such as the PING and TRACEROUTE commands. Therefore it would be obvious to one of ordinary skill in the art that an error message could be issued in a DNS system as described in Mockapetris to show the failure to communicate with or locate a particular address. In specific regard to claim 10, *sending the requested address if it is found* is taught under the rejection of claim 1, which is duly applied to claims 8 and 10.

Conclusion

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on 571-272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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